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ABSTRACT

Race, sex, community size, occupation of major wage earner, father's education, mother's education, and certainty of expectations were the variables used in this study to determine the "anticipatory occupational goal deflection" (AOGD) of urban and rural youth (blacks and whites) in Louisiana. Least squares analysis of variance and other statistical techniques were applied to data obtained by questionnaire from 296 selected subjects to determine the relative effect of the variables on occupational aspirations, occupational expectations, and AOGD. Findings suggested that confounding influences exist among many independent variables and that youth adjust and modify their occupational goals in terms of goal-impedance factors which confront them each day. It was also suggested that black youth experienced less AOGD and held higher job plans for the future than their white counterparts. The document contains 22 tables and a bibliography. (AL)

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RURAL YOUTH AND ANTICIPATORY GOAL DEFLECTION*

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RURAL YOUTH AND ANTICIPATORY GOAL DEFLECTION

Introduction

The past twenty-five years have witnessed the accumulation of an extensive amount of sociological research on the occupational projections of adolescents (for extensive bibliographies, see: Kuvlesky and Ohlendorf, 1967; and Kuvlesky, 1969). Despite the large expenditures of research effort in this general area, only a minimal number of studies have been specifically concerned with an in-depth analysis of factors associated with anticipatory occupational goal deflection. Furthermore, the vast majority of these projection studies have limited their analysis to descriptive statistical techniques.[1] An attempt to ameliorate this situation has provided the major impetus for this study.

Theoretical Orientation

Occupational choice is most often theoretically approached in terms of a developmental model (Ginzberg, 1951; Blau, 1956; Rodgers, 1966; and Musgrave, 1967). This perspective maintains that with increased maturity of the individual, occupational orientations become increasingly realistic. In the preadolescent or "fantasy" stage of occupational choice, the child selects occupations that appear most pleasurable (Ginzberg, 1951: 62).

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[1]Exceptions to this contention include studies by Harrison (1969), Cosby (1969), Sewell, et al. (1969) and Spaeth (1968).

However, as the youth enters adolescence, occupational choices become increasingly "tentative"; finally, the individual selects among these tentative choices to attain a "realistic" stage near the time of senior high school (Ginzberg, 1951: 62-95).

Throughout this "developmental process" numerous sociologically-relevant factors affect the nature of one's occupational choice. Slocum (1959: 140-142) has noted the importance of "playing at" occupational roles in the job selection process of adolescents. "Playing at" future occupational roles includes "consideration of an occupational role by a person who has not entered the labor force, or of an alternative occupation by one who has a job" (Slocum, 1959: 142). During this process a person vicariously places himself in the job, imagining the responsibility and the advantages of the occupation he desires. The evaluations of this role by significant others are taken into consideration and aid the crystallization of one's occupational orientations.

Musgrave (1967: 48) has emphasized the importance of "economic socialization" in the "pre-work" stage of adolescent development. As youth mature and begin to "play at" future occupational roles, through "economic socialization" they increasingly become cognizant of the prerequisites for placement in specific occupations. Thus, during the "realistic" stage of occupational choice, the adolescent not only narrows the range of possible future occupations but he also is continually assessing his potential for

successful job placement by making numerous decisions that affect eventual attainment. As the individual becomes concerned with the prerequisites associated with specific types of jobs, he becomes aware of possible obstacles or goal-impedance factors associated with his specific social situation. Through the "means-centering" process (Cosby and Picou, 1971) an individual perceives goal-impedance factors which may engender career-oriented decisions that modify occupational goals. Along these lines, Blau (1956: 536) has noted:

> ...the individual compromises his ideal preference and his actual expectations of being able to enter a given occupation, the latter being conditioned by previous rejections and other experiences.

Kuvlesky and Bealer (1966) have conceptually distinguished and refined Blau's ideas concerning "ideal preferences" and "active expectations". These authors note that there are two components within occupational orientations. First, there are occupational aspirations which refer to job goals which the individual desires to attain. Second, occupational expectations refer to occupational choices which are anticipated and may or may not be desired (Kuvlesky and Bealer, 1966). When a person's occupational expectation differs from his occupational aspiration anticipatory occupational goal deflection (hereafter referred to as A.O.G.D.) exists. Thus, A.O.G.D. is the occurence of incongruent occupational goals and plans, which most probably reflect the compromise process in occupational choice noted by Blau (1956: 536).

Drawing the foregoing perspectives together, a sociological frame of reference may be obtained which views institutions and socialization agencies as "processing" individuals. In this process, development in terms of the acquisition of norms, values and definitions, is rather continuous though articulated by "points of passage" which demark significant stages of development. Furthermore, the effect of the institutions on the development of the individual is limited by the innate potential of the individual, the development of the individual is also limited by the substantive scope of the particular system to which he is exposed.

Of concern here is the development of occupational aspirations, expectations, and goal deflection. In the structure outlined above, a range of occupational values is imparted to the individual from which he develops aspirations. However, those same systems imparting institutionalized values also provide definitions from which the individual assesses, through an interpretive process, his potential to attain his aspirations (Blumer, 1969: 52). Where such assessment is negative, deflection occurs and some expectation as nearly as possible within the range of acceptable occupational values develops as a substitute. That systems differences do exist which may affect the nature and range of such deflection should be readily apparent.

Conceptual Frame of Reference

Occupational aspirations have been viewed in terms of goal orientations. Concretely, aspirations can be defined as the occupational status to which one is attracted by possession of an acquired value set. Compromise, either in terms of individual ability or in terms of social or market conditions is not implied in this definition.

Occupational expectations have been defined as anticipated job achievement. It is here that compromise in terms of ability, social and market prospects is posited. This definition implies that the individual rationally evaluates his goals and ability as well as his social milieu, particularly the situation of the job market and makes those adjustments necessary to arrive at a realistic job choice or expectation (Kuvlesky and Bealer, 1966).

A.O.G.D. is defined as the magnitude of difference between aspirations and expectations. As such, it may be viewed as a measure of compromise which the individual perceives as necessary between his occupational values and perceived social reality. It should be noted that specifications as to the degree and direction of A.O.G.D. are warranted. Positive deflection occurs when expectations are higher than aspirations. The reverse of this condition produces negative deflection (Kuvlesky and Ohlendorf, 1968). It is apparent that magnitudes of occupational projections can be viewed on several dimensions (Cosby and Picou, 1970). This paper, however, confines its analysis to the prestige dimension.

Review of Relevant Literature

One of the earliest studies centering on A.O.G.D. was that of Peter Glick, Jr. (1964). In this study, 339 undergraduates were asked to respond to a questionnaire ascertaining their occupational aspirations and expectations. It was found that 151 (45 per cent) of the respondents experienced A.O.G.D. (Glick, Jr., 1964, p. 676). A slight inverse relationship between number of respondents incurring A.O.G.D. and level of fathers' occupation was observed in the study. (Glick, Jr., 1964, p. 676).

In a racial comparison of 98 Negro and 153 white youth from rural areas, Ameen (1967, p. 51) found that 35 per cent of the Negro sample and 30 per cent of the white sample experienced A.O.G.D.. While there was relatively no difference between blacks and whites as to negative deflection (21 per cent and 22 per cent respectively), a slightly greater proportion of blacks demonstrated positive deflection (14 per cent black and 8 per cent white). On the other hand, the author found that the magnitude of deflection of blacks tended to be somewhat greater than that of whites.

Cosby and Picou (1970) found in a sample of males enrolled in the College of Agriculture at a large southern university in 1965, that 33.1 per cent of the respondents experienced A.O.G.D.. Analysis of responses revealed that A.O.G.D. was inversely related to each of four indices of class. Those indices are fathers' occupation, income, education and size of farm (Cosby and Picou, 1970).

Picou (1969, p. 121) found that 36 per cent of a sample of rural and urban blacks experienced A.O.G.D. This 36 per cent is comprised of 13 per cent positive deflection and 23 per cent negative. He found no significant differences in the proportion deflecting either positively or negatively by residence. However, much larger proportions of both residential groups demonstrated negative deflection than they did positive deflection.

In a sample of 7,775 young people from five different states, Lever (1969) found 34 per cent of the respondents had experienced A.O.G.D.. No significant racial difference was found for proportions of respondents experiencing A.O.G.D.. Specifically, 32.2 per cent of the black and 34.7 per cent of the white respondents experienced A.O.G.D.. No sex differences among blacks were discussed but a substantially greater proportion of white females than white males demonstrated A.O,G.D.. Of the total A.O.G.D., negative deflection was experienced by significantly larger proportions of both whites and blacks. When proportion of respondents experiencing A.O.G.D. was controlled by socio-economic status, blacks demonstrated a statistically significant inverse relationship. That is, larger proportions of low-status blacks experienced A.O.G.D. than did high-status blacks. While the same trend appeared for whites, it did not obtain statistical significance.

In a tri-ethnic study (Kuvlesky, Wright and Juarez, 1969), 35.5 per cent of respondents experienced A.O.G.D.. When the data

analysis was controlled for sex and ethnicity, no significant differences of proportions experiencing A.O.G.D. within each subgroup were found. As in a previously mentioned study (Lever, 1969), white females were the highest proportion of respondents deflecting. In all groups, proportions experiencing negative deflection were greater than those experiencing positive deflection.

To summarize, studies have tended to show:

1. A.O.G.D. has occurred for 33 per cent to 45 per cent of respondnets sampled.
2. Negative A.O.G.D. occurs significantly more often than positive A.O.G.D..
3. Significant differences in proportions experiencing A.O.G.D. are not to be found between races or sexes.
4. A slight inverse relationship appears to exist between socio-economic status and proportion of respondents experiencing A.O.G.D..

Methodological Procedures

From the review of pertinent literature and consideration of the problem, selected variables were chosen for analysis of their effect on occupational projections. These variables are:

1. Race
2. Sex
3. Community Size - structured as a four class ordinal variable ranging from "rural farm" to "city of 2,500 or more".
4. Occupation of Major wage earner - structured as a high order ordinal scale using the 1963 N.O.R.C. verification scale.
5. Fathers' education - structured as an eight class ordinal scale ranging from "did not go to school" to "college graduate".
6. Mothers' education - structured as "fathers' education" above.
7. Goal impedance - structured as a seven class quasi-Guttman scale. The development of this scale will be

discussed later.

8. Certainty of Expectations - structured as a five class ordinal scale ranging from very certain to very uncertain.

The dependent variables (aspirations, expectations, and O.O.G.D.) were assigned values corresponding to occupational values obtained in the 1963 N.O.R.C. verification study. While scales values thus obtained are high ordinal they are treated as interval in the analysis.

The value for anticipatory occupational goal deflection was obtained by taking the real difference between a respondent's expectation and his aspiration scores. That is, the prestige value assigned to a respondent's stated occupational aspiration was subtracted from the prestige value assigned to one's stated occupational expectation. From this, it is apparent that when one's aspirations and expectations are the same the deflection value is zero; when aspirations are higher in prestige than expectations the deflection value is negative; and when aspirations are lower than expectations the value is positive. This treatment gave the A.O.G.D. variable a potential range of values from -99 to +99. This variable shall be treated as interval level in the analysis of the data.

Of an original proportionate, stratified, random cluster sample of 544 subjects 248 had to be rejected due to incomplete responses leaving an analysis set of 296 subjects. The analysis technique (least squares analysis of variance) utilized required

complete responses from each subject for each item of analysis. The subjects returning incomplete responses constitutes 44 per cent of the original sample. Chi-square test of the distribution of responses along the values of each independent variable by rejected, analysis, and original sample sets indicated potential biasing effects resulting from disproportionality occuring by race, fathers' education, and mothers' education (See appendix A). While these facts warrant caution, the analysis technique explicitly compensates for disproportionality among subsets and is considered to yield unbiased parameter estimates (see: Harvey, 1960). Additionally, this model is so structured as to test the effects of a given independent variable on the dependent variable while holding constant the effects of all other independent variables included in the model. The researcher may therefore assume, to the degree that his model contains those variables relevant to the phenomena of concern that the effects observed are due to the independent variable and not the influence of other factors.

Ideally, the model, complete with main effects and all first order interactions, would have been applied to the data. Such was not possible due to the relatively small number of respondents in the analysis set. A single model conforming to the above description would require 322 degrees of freedom for the mean estimate, main effects, and first order interactions of main effects.

In order to overcome this limitation, the data was first tested for significant effects of the various first order interactions. A model was then written for each dependent variable (aspirations, expectations and goal deflection) which included main effects and interaction effects which proved significant at the .05 level of confidence.

The covariance effect of breadwinner's occupation was also tested in this step. The fact that it did not obtain significance at any level for any one of the three dependent variables warranted its elimination from the final analysis model. This elimination helped to reduce rounding error in the matrix inversion process, thereby gaining some increased accuracy for those effect estimates remaining in the model. For information purposes the simple correlation of breadwinner's occupation to aspirations (r_a), to expectations (r_e), and to A.O.G.D. (r_d) is presented below:

1. $r_a = .1184$
2. $r_e = .1199$
3. $r_d = .0150$

Both r_a and r_e obtain significance with t (r_a) = 2.044 and t (r_e) = 2.072. However, the fact that the covariance relationships did not obtain significance implies that these apparent relationships are due primarily to confounding. Further, the low variance explained by this variable does not warrant serious consideration of breadwinner's occupation as an explanatory variable for this sample.

Prior to analysis of the data, a set of scale values had to be developed for the goal impedance variable. This term is borrowed from electronics and is herein defined as an item order specified set of barriers to achievement of one's occupational aspirations.

Since no research has dealt with the relationship of these items to occupational projections or A.O.G.D., it was considered as being more parsimonious to treat these items in aggregate rather than individually. If analysis reveals that these items in aggregate have significant affects upon either occupational projections or A.O.G.D., then the researcher has a sound basis upon which to examine them individually.

Starting from the above assumption, operationalization of the variable requires, first,that an aggregate score for each individual's response set for the above items be generated and second, that this score be produced in such a way that any item-order effect be preserved.

The approach to this was to attempt the development of a quasi-Guttman scale.[2] While the development of such a scale

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[2]The scale is called a quasi-Guttman in that the only restriction placed upon the data was that a minimum of five stimulus items produced a coefficient of reproducability of .90. See: Torgerson, (1958, pp. 307-324) for the characteristics of a true Guttman scale.

necessitated the elimination of some of the stimulus items, this does not, in the writers' opinion, invalidate the resultant scale. There is no theoretical basis which mandates inclusion of the original set of items in totality. Further, aggregate treatment of the items calls for a homogeneity of order among rather than a multiplicity of stimulus items. That is, only those items need be included which demonstrate an internal cohesion of item order.

The items which produced an acceptable scale in the order in which they are predictive of succeeding items are:

1. My race
2. Lack of parents' interest
3. The schools I have gone to
4. Not smart enough
5. Don't know about the opportunities that exist and
6. Lack of good job opportunities in or near my community.

The coefficient of reproduceability for these items is .905 which meets the minimum criterion established.

A scale from one to seven was assigned to each response set depending on the scale type which the set most nearly approximates. It should be noted that the scale values comprise an ordinal hierarchy from seven representing the most severe impedance, to one, representing the least severe impedance.[3]

Perfect scale types for each of the seven impedance classes obtained are presented in the following table:

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[3]A verification study of the scale is now in progress. Preliminary analysis indicates that the CR can be duplicated in succeeding independent samples. Tables and sample description will be provided upon request.

Table 1
Perfect Impedance Scale Types and
Associated Rank Order Values*

Scale Rank Order Value	Impedance Items					
	Race	Lack of Parental Interest	Schools Attended	Lack of Intelligence	Insufficient Knowledge of Job Opportunities	Insufficient Job Opportunities in or Near Community
1	0	0	0	0	0	0
2	0	0	0	0	0	1
3	0	0	0	0	1	1
4	0	0	0	1	1	1
5	0	0	1	1	1	1
6	0	1	1	1	1	1
7	1	1	1	1	1	1

*Note: 0 indicates that an item is not perceived as impeding opportunity; 1 indicates that it is.

Analysis of Occupational Aspirations

The overall mean of aspirations was $\bar{X}$ = 73.63 with a standard deviation of s = 10.97. This mean relates closely to the values obtained by four titles in the study by Hodge, et. al (1963). Those titles and their scores are:

1. Farm owner and operator 74
2. Undertaker 74
3. Welfare worker for a city government 74
4. Newspaper columnist 73

The overall least squares mean aspiration level is 74.83. This is the mean that would be expected to obtain under conditions of equal subclass frequencies.

The analysis model was derived by the procedure described above. As was noted earlier, the variable, "Breadwinner's Occupation", was eliminated from the analysis model. The results of that analysis are contained in Table 2.

It should be noted that only the interaction of race and father's education obtained significance at the .05 level. The trend is for blacks whose fathers attained less than high school graduation to have higher aspirations than whites whose fathers had the same level of attainment. Those blacks whose fathers had attained beyond the high school level demonstrated lower aspirations than whites whose fathers had similar educational attainment. The fact that neither race nor father's education were independently significant implies that there is some degree of confounding between the variables. Distribution

Table 2
Analysis of Variance of Occupational Aspirations

Source	Degrees of Freedom	Sums of Squares	Mean Square	F	Probability
Total	296	1,640,486.0000			
Race	1	26.1906	26.1906	.237	n/s
Sex	1	48.0785	48.0785	.435	n/s
Community Size	3	628.7751	209.5917	1.896	n/s
Father's Education	6	292.6141	48.7690	.441	n/s
Mother's Education	7	788.1918	112.5988	1.019	n/s
Certainty of Expectations	3	430.4200	143.4733	1.298	n/s
Impedance	6	1,275.5897	212.5982	1.923	n/s
Race by Father's Edu.	6	1,635.7120	272.6186	2.466	**
Error	262	28,959.4334	110.5321		

** $.01 < P(F = 2.466) < .025$

of least-squares means of aspirations by race and father's education are shown in Table 3.

Table 3
Least-Square Mean Aspirations by Race of Respondent and Education of Father[4]

Fathers' Education*	Race	
	Black	White
No School	75.42	71.95
Grade 1-7	78.52	69.88
Grade 8	75.60	74.52
Some High School	79.20	75.66
Vocational Training	73.65	79.65
Some College	63.83	79.99
College Graduate	74.23	75.56

*The category "High School Graduate" was eliminated due to the small number of acceptable responses in that category.

[4]The trend in this table is reinforced by two orthogonal contrasts, both of which obtained statistical significance at the .05 level. The first contrast was between level of aspirations by race and 'Grade 1-7" of father's education. The second was between mean level of aspiration by race and "Some College" of father's education.

Analysis of Occupational Expectations

The overall mean of expectations obtained was $\bar{X}$ = 69.76 with a standard deviation of S = 12.06. The distribution of expectations did not cluster as closely around the mean as the distribution of aspirations. The mean value for expectations relates closely to the values obtained by the following titles in the study by Hodge, et al. (1963):

1. Radio Announcer	70
2. Bookkeeper	70
3. Tenant Farmer (Owns equipment and manages farm)	69
4. Insurance Agent	69

The overall least-squares mean expectation level is 71.30.

No interaction effects obtained significance at the .05 level. Therefore, none were included in the final analysis model for expectations. As was true of aspirations, breadwinner's occupation failed to obtain significance as a covariant of expectations. It was also eliminated from the final analysis model. Results of the analysis is presented in Table 4.

Race as a main effect obtained significance at the .05 level. Blacks demonstrated higher mean expectations ($\bar{X}$ = 73.17) than whites ($\bar{X}$ = 69.43). Although the difference is not significant, whites were found to have slightly higher mean aspirations ($\bar{X}$ = 75.32) than blacks ($\bar{X}$ = 74.35).

Although not obtaining statistical significance at a traditionally accepted level of significance, impedance does appear to moderately predict levels of expectation, thus implying

Table 4
Analysis of Variance of Occupational Expectations

Source	Degrees of Freedom	Sums of Squares	Mean Square	F	Probability
Total	296	1,483,278.0000			
Race	1	557.2900	557.2900	4.142	**
Sex	1	165.3739	165.3739	1.229	n/s
Community Size	3	604.1469	201.3823	1.497	n/s
Father's Education	6	1,011.7110	168.6185	1.253	n/s
Mother's Education	7	212.1948	30.3135	0.225	n/s
Certainty of Expectations	3	543.4829	181.1609	1.347	n/s
Impedance	6	1,415.2128	235.8688	1.753	n/s
Error	268	36,054.6315	134.5322		

** $.025 < P(F = 4.142) < .05$

substantive significance. Overall, mean expectation level tends to decrease as impedance increases. The reader is reminded that these impedance levels reflect obstacles which the respondents perceived as preventing them from attaining their occupational goals. As such, it would be expected that the larger number of obstacles one perceives the lower would be his occupational expectations. Least-square mean expectations by impedance level are presented in Table 5.

Table 5
Least-Square Mean Expectations
by Level of Impedance

Impedance	Expectations
1	74.98
2	72.51
3	67.96
4	72.08
5	72.62
6	69.85
7	69.11

Analysis of Anticipatory Occupational Goal Deflection

The overall mean obtained for this variable was $\bar{X} = -3.88$ with a standard deviation of 9.82. The negative mean reflects downward deflection by a majority of respondents experiencing

deflection. The overall least-squares mean obtained was -4.28.

The analysis model derived included the interaction effect of race by community size. As was the case, for aspirations and expectations breadwinner's occupation was deleted from the model for the analysis of A.O.G.D.. The results of the analysis is presented in Table 6.

Table 6
Analysis of Variance of Anticipatory Occupational Goal Deflection

Source	Degrees of Freedom	Sums of Squares	Mean Square	F	Probability
Total	296	32,884.0000			
Race	1	334.9535	334.9535	3.646	n/s
Sex	1	23.9783	23.9783	.261	n/s
Community Size	3	364.0565	121.3521	1.321	n/s
Father's Education	6	329.9618	54.9936	.599	n/s
Mother's Education	7	174.0695	24.8670	.271	n/s
Certainty of Expectations	3	290.0997	96.6999	1.052	n/s
Impedance	6	980.5243	163.4207	1.779	n/s
Race by Community Size	3	1,031.8073	343.9357	3.743	**
Error	265	24,347.7229	91.8782		

** $.01 < P(F = 3.743) < .025$

Race by community size obtained significance at the .025 level. The distribution of the interaction subclass least-squares means

is presented in Table 7.

Table 7
Least-Square Mean Anticipatory Occupational Goal Deflection by Race and Community Size

Community Size	Race	
	Black	White
Rural Farm	-7.07	-3.28
Rural Non-Farm	-2.76	-7.42
Town or Village	1.17	-4.42
City of 2,500 +	-2.29	-8.18

Blacks and whites tend to exhibit opposite trends. Deflection among blacks tends to decrease as community size increases while among whites, it tends to increase with community size.

Overall, whites experienced greater deflection than blacks. The least-squares mean deflection was -5.83 for whites and -2.74 for blacks. Race effects on deflection obtained significance at the .10 level. It should be recalled that mean expectation levels by race were significantly different.

The relationship between impedance and A.O.G.D. did not obtain statistical significance. However, the direction of the relationship conforms to that expected if respondents actually perceived the items of the scale as impeding achievement of their aspirations. Table 8 reveals the least-square mean level of deflection by level of impedance.

Table 8
Least-Square Mean Deflection by
Level of Impedance

Impedance Level	A.O.G.D.
1	-1.16
2	-3.24
3	-3.80
4	-4.09
5	-6.71
6	-3.28
7	-7.70

The next step of the analysis was to further test the effect of certain variables on aspirations, expectations and deflection by path-analytic techniques. Three path models were constructed, each containing two exogenous variables (fathers' education and occupation), one endogenous variable (goal impedance) and the dependent variable (aspirations in model 1, expectations in model 2, and deflection in model 3). The variables of fathers' education and breadwinners' occupation were reintroduced into analysis despite the rather weak relationships they demonstrated in the least-squares analysis. These variables have traditionally been found to be related to the phenomenon under consideration. Thus, the authors were interested in discerning effects they might demonstrate in a standardized multiple regression model. Furthermore, it was anticipated that the construction of path-analytic causal models would clarify the observed trend between the goal impedance scale and the dependent variables.

Extensive explication of path-analysis techniques can be found in Duncan (1966), Li, (1955:144-171) and Wright (1968: 299-372). Briefly, path-analysis is a technique for examining a closed, recursive system of variables among which causal relationships are posited.[5] As Duncan (1966) has noted:

> The great merit of the path scheme, then, is that it makes the assumptions explicit and tends to force the discussion to be at least internally consistent, so that mutually incompatible assumptions are not introduced surreptitously into different parts of an argument extended over scores of pages (Duncan, 1966:7).

In the three models posited, goal impedance is viewed as an intervening variable.

The gross interrelationships of the four variables in each of the models are shown in Table 9. Figure 1 reveals the three models employed and the resultant analysis for each.

The path diagrams indicate that these models possess relatively little explanatory power for the dependent variables of aspirations, expectations and A.O.G.D.. In none of the models did the traditionally strong exogenous variables demonstrate significant effects (See Appendix B). However, this does not obviate the utility or value of the models employed.

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[5]Utilization of path-analysis requires the researcher to make several assumptions about the variables under consideration. These assumptions are explicated by Hiese (1969: 38-73) and Land,(1969:3-37).

Table 9
Matrix of Zero Order Correlations for
the Three Path Models

Variables	X_1	X_2	X_3	X_4	X_5	X_6
Model 1						
X_1 (Father's Edu.)	....	.337	-.105	.124	....	....
X_2 (Bread-winner's Occu.)	....	....	-.002	.066	....	....
X_3 (Imp.)	....	....	....	.005	....	....
X_4 (Asp.)	....	....	....	....	....	....
Model 2						
X_1	....	.337	-.105	....	.130	....
X_2	....	....	-.002	....	.117	....
X_3	....	....	....	....	-.123	....
X_5 (Exp.)	....	....	....	....	....	....
Model 3						
X_1	....	.337	-.105	....	....	.021
X_2	....	....	-.002	....	....	.070
X_3	....	....	....	....	....	-.157
X_6 (Goal Deflec-tion)	....	....	....	....	....	....

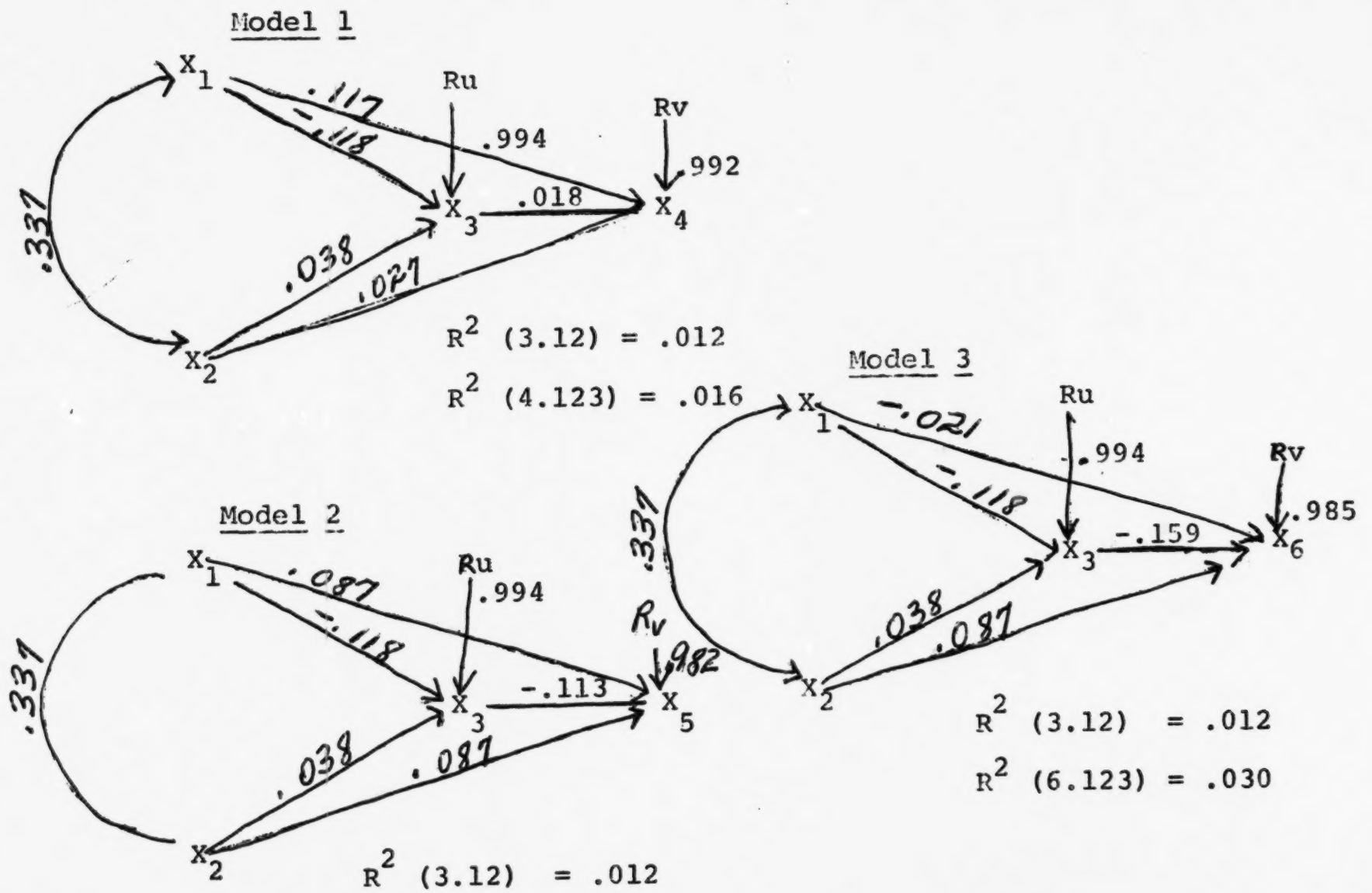
It should be noted that the intervening variable of goal impedance demonstrates stronger direct effects on expectation and A.O.G.D. than on aspirations. Impedance has a negligible effect on aspirations. The path coefficient for impedance on aspirations is .018. Expectations are negatively influenced by perception of impedance factors. The direct effect of impedance on expectations yields a path coefficient of -.113.

The path coefficient for the effect of impedance on A.O.G.D. is -.159. The coefficient was twice its standard deviation, the traditionally accepted level of significance. This negative relationship is a function of numbers and not to be confused as indicating that deflection decreases as impedance increases. That is, the goal impedance effect is reflected by an increasing magnitude of deflection as perception of impedance increases.

Summary and Conclusions.

In this paper, an attempt has been made to analyze, by least-squares analysis of variance and path-analysis statistical techniques, the relative effects of selected variables on occupational aspirations, occupational expectations and A.O.G.D.. A Guttman-like scale measuring perceived occupational goal impedance was developed, yielding a coefficient of reproducibility of .905. This scale was incorporated in the least-squares analysis of variance as an independent variable and in the path model as an intervening variable.

FIGURE 1. - PATH DIAGRAM FOR THE THREE MODELS



For all models: X_1= Fathers' Ed, X_2= Breadwinners' Occu., X_3= Goal Imp., X_4= Occu. Asp., X_5= Occupational Expectations and X_6= A.O.G.D.

The least-squares analysis of variance revealed an interesting race by fathers' education interaction effect on aspirations. Blacks were found to have significantly higher aspirations than whites for all categories of fathers' education less than high school completion. For all categories of fathers' education greater than high school completion, whites demonstrated significantly higher aspirations than blacks. While the trend itself is apparent, the cause is not. Quite possibly, this interaction effect reflects differential aspiration levels by fathers' education and race which are not discernable through test statistics of a lower power run on data grouped by nominal and ordinal measurement levels.

Although the interaction of race and fathers' education demonstrated significant differences of mean aspirations, neither race nor fathers' education as main effects revealed statistically significant differences. The confounding revealed by this finding implies the need for multivariate analysis models capable of handling, minimally, first-order interaction effects for future studies.

Goal impedance was incorporated in the analysis because of its apparent relation to expectations despite the fact that statistical significance did not obtain at conventional levels in the least-squares analysis. The relationship of impedance to expectations is reasonably clear. There is an overall downward trend in level of expectation as level of

impedance increases. Although the relationship is not statistically perfect, it does suggest a degree of agreement between the operational and conceptual definitions which, in turn, implies a modicum of validity for the definitions. Furthermore, the magnitude of A.O.G.D. was found to increase as perception of goal impedance factors increased. This fact should be noted in conjunction with the path models developed in this paper. The direct effect of goal impedance on A.O.G.D. was significant, suggesting that the phenomenon of A.O.G.D. is related to the student's perception of factors which impede the attainment of his aspirations.

The finding that blacks had higher occupational expectations than whites may reflect the "rising tide of optimism" which many students of race relations have posited as characterizing black communities. Numerous factors have recently coalesced to raise the occupational plans of black youth. The progress of the civil rights movement giving blacks access in areas that were heretofore inaccessible; the accompanying "black pride" movement directed toward uplifting black self-esteem; the active recruiting of blacks by industry; and propaganda of the mass communications media have definitely provided young blacks with optimistic perceptions of their occupational future. This argument is reinforced by the fact that only 18 (19 per cent) of 94 black respondents perceived

their race as impeding achievement of their aspirations. The reader is reminded that these respondents were drawn primarily from rural areas in Louisiana.

This finding contradicts previous empirical findings. The relationship demonstrated in earlier studies has been weak and not entirely clear. However, researchers have tended to find either no difference by race or that whites have higher expectations than blacks (See: Cosby and Picou, 1971; Kuvlesky and Upham, 1967). This study has found just the opposite.

This racial difference in levels of expectation is reflected in the fact that blacks reflected a lower mean A.O.G.D. level than did whites. Since the differences in levels of aspiration by race were negligible, it is expected that mean deflection differentials will be determined by the mean expectation differentials.

The interaction of race by community size produced statistically significant differences. Blacks coming from rural farm areas had greater mean deflection than their white counterparts. However, in every other residence category blacks demonstrated lower mean deflection than whites. If the rationalization offered earlier for the higher mean expectation level of blacks holds, then the explanation for this trend may be simply that rural farm blacks have not yet been sufficiently influenced by the dynamics of this phenomenon (increased optimism) to experience an observable rise in occupational expectations.

The relationship between community size and both aspirations and expectations tend to reflect the findings of previous empirical studies. The mean level of both form a scale of ascending mean levels as community size increases. However, the analysis of variance indicates that neither of these relationships were statistically significant.

In summary, it should be noted that this study has attempted an in-depth analysis of occupational aspirations, expectations, and goal deflection. The fact that these concepts are analytically distinct should not obviate the fact that, in reality, they are inextricably related. Our findings suggest the possibility that confounding influences exist among many independent variables. Furthermore, they also indicate that youth adjust and modify their occupational goals in terms of goal-impedence factors which confront them in everyday life. The fact that black youth experienced less A.O.G.D. and held higher job plans for the future is considered a reflection of a general social trend that pervades the black community. The potential for future occupational frustration is apparent when one takes into consideration the fact that blacks are still under-represented in prestige occupations.

Finally a word of caution is in order. The analysis was secondary, not allowing for hypotheses testing and theory verification. There was a large number of rejections in the

original sample due to incomplete responses which caused disproportionality in the distribution of certain dependent variables (See Appendix A). The least-squares analysis of variance technique specifically compensates for such disproportionality and is considered to yield unbiased parameter estimates. In addition, the sample was drawn almost exclusively from rural areas.

As has been noted, methodological techniques which are intended to compensate for the above weaknesses have been employed. However, it is possible that this analysis neither discriminated significant relationships between level of aspiration or expectation and community size, nor between traditional measures of S.E.S. (fathers' education and fathers' occupation) and aspirations and expectations because of limitations discussed above.

Further research might well profit by building data-gathering instruments around the more powerful tests statistic available to the researcher. In addition, incorporation of the goal impedance scale as a social psychological variable should enhance further findings. In this same vein samples drawn should cut across rural-urban dimensions. Although interest is primarily focused on rural phenomena, it is only by understanding how a variable operates in the total universe that the researcher can come to appreciate its function with respect to some subset of that universe.

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APPENDIX A

REJECTION OF INCOMPLETE RESPONSES AND ANALYSIS OF ITS EFFECTS

The large number of respondents which had to be rejected due to incomplete responses required analysis to ascertain the possible biasing effect introduced by these rejections. There were seven respondents lost in the original data decks. In the original data decks, the information supplied by each respondent required three data cards for recording. The seven missing responses mentioned above are those for whom one or more data cards were missing. An additional 228 respondents had to be rejected for analysis due to incomplete responses. In the remaining set, there was only one respondent indicating that he was very uncertain of achieving his expectations; five respondents indicating their fathers had completed high school; two respondents indicating oriental racial background; and one respondent indicating Indian lineage. These respondents were also eliminated for the analysis set. Summarily, 244 of the original sample respondents had to be rejected for analysis, leaving an analysis set of 296 respondents.

In an attempt to ascertain the possible biasing effects this large proportion of rejections may have had, a x^2 test was employed. The significance level selected was = .05. The data was arranged for analysis in the following manner.

The distribution of the rejected set, the analysis set, and the overall sample set was calculated over a given demographic variable. The x^2 test was then applied to determine whether the distributions of the analysis set and the rejected set were

significantly different from the distribution of the overall sample set. This procedure was employed for each demographic variable utilized in the analysis of the data.

From this procedure an estimate of biasing effects may be obtained. That is, where a x^2 yields significance, the cumulative difference between the distributions of the rejected and analysis sets and the overall sample set are such as would be randomly obtained less than 5 per cent of the time. When such obtains, the researcher will assume that biasing effects have been introduced by the rejections.

The following tables indicate the results of the Chi-square analysis. Where a distribution obtained significant differences, the percentage distribution is presented in a table immediately following.

TABLE I

RACIAL DISTRIBUTION WITHIN REJECTED, ANALYSIS AND OVERALL SAMPLE TEST*

Race	Rejected Set	Analysis Set	Overall Sample Set
White	118	202	320
Black	119	94	213
Oriental	2	0	2
Indian	1	0	1
TOTAL	240	296	536

*Due to the small number of responses contained therein, the categories "Oriental" and "Indian" were not included in the Chi-square test.

Non-respondents = 1

$x^2 = 18.6818$ d.f. = 1
$P(x^2 = 18.6818) < .001$

TABLE I-A.

RACIAL DISTRIBUTION BY PERCENTAGES

Race	Rejected Set	Analysis Set	Overall Sample Set
White	49.17	68.24	59.70
Black	49.58	31.76	39.74
Oriental	.83	0.00	.37
Indian	.42	0.00	.19
TOTAL	100.00	100.00	100.00

TABLE II

SEX DISTRIBUTION WITHIN REJECTED, ANALYSIS AND OVERALL SAMPLE SETS

Sex	Rejected Set	Analysis Set	Overall Sample Set
Male	116	144	260
Female	125	152	277
TOTAL	241	296	537

$x^2 = 0.0142$ d.f. = 1
Not significant

TABLE III

COMMUNITY SIZE DISTRIBUTION WITHIN REJECTED, ANALYSIS AND OVERALL SAMPLE SETS

Community	Rejected Set	Analysis Set	Overall Sample Set
Farm	82	103	185
Rural Non-Farm	92	105	197
Town or Village	41	47	88
City of 2,500 +	25	41	66
TOTAL	240	296	536

Non-respondents = 1

$x^2 = 1.6973$ d.f. = 3
Not significant

TABLE IV

CERTAINTY OF EXPECTATIONS DISTRIBUTION WITHIN REJECTED, ANALYSIS AND OVERALL SAMPLE SETS*

Certainty of Expectations	Rejected Set	Analysis Set	Overall Sample Set
Very Certain	35	56	91
Certain	60	118	178
Not Very Certain	55	100	155
Uncertain	15	22	37
Very Uncertain	4	0	4
TOTAL	169	296	465

*Due to the small number of responses contained therein, the category "Very Uncertain" was not included in the Chi-square test.

Non-respondents = 72

$x^2 = .9881$ d.f. = 3
Not significant

TABLE V

FATHER'S EDUCATION DISTRIBUTION WITHIN REJECTED, ANALYSIS AND OVERALL SAMPLE SETS*

Father's Education	Rejected Set	Analysis Set	Overall Sample Set
No School	53	84	137
Grade 1-7	32	39	71
Grade 8	28	44	72
Some High School	25	49	74
High School Graduate	12	0	12
Vocational Training	8	28	36
Some College	9	23	32
College Graduate	39	29	68
Don't Know	1	0	1
TOTAL	207	296	503

*Due to the small number of responses contained therein, the category "Don't Know" was not included in the Chi-square test.

Non-respondents = 34

$x^2 = 34.7306$ d.f. = 7
$P(x^2 - 34.7306) < .001$

TABLE V-A.

DISTRIBUTION OF FATHER'S EDUCATION
BY PERCENTAGES

Father's Education	Rejected Set	Analysis Set	Overall Sample Set
No School	25.60	28.38	27.24
Grade 1-7	15.46	13.18	14.11
Grade 8	13.53	14.86	14.31
Some High School	12.08	16.55	14.71
High School Graduate	5.80	0.00	2.39
Vocational Training	3.86	9.46	7.16
Some College	4.35	7.77	6.36
College Graduate	18.84	9.80	13.52
Don't Know	.48	0	.20
TOTAL	100.00	100.00	100.00

TABLE VI

MOTHER'S EDUCATION DISTRIBUTION WITHIN REJECTED, ANALYSIS, AND OVERALL SAMPLE SETS*

Mother's Education	Rejected Set	Analysis Set	Overall Sample Set
No School	35	33	68
Grades 1-7	27	31	58
Grade 8	30	75	105
Some High School	31	79	110
High School Graduate	15	12	27
Vocational Training	12	12	24
Some College	16	30	46
College Graduate	20	24	44
Don't Know	1	0	1
TOTAL	187	296	483

*Due to the small number of responses contained therein, the category "Don't Know" was not included in the Chi-square test.

Non-respondents = 54

$x^2 = 21.5417$ d.f. = 7

$.001 < P(x^2 = 21.5417) < .01$

TABLE VI-A.

DISTRIBUTION OF MOTHER'S EDUCATION
BY PERCENTAGES

Mother's Education	Rejected Set	Analysis Set	Overall Sample Set
No School	18.72	11.15	14.08
Grades 1-7	14.44	10.47	12.01
Grade 8	16.04	25.34	21.74
Some High School	16.58	26.69	22.77
High School Graduate	8.02	4.05	5.59
Vocational Training	6.42	4.05	4.97
Some College	8.56	10.14	9.52
College Graduate	10.69	8.11	9.11
Don't Know	.53	0.00	.21
TOTAL	100.00	100.00	100.00

It should be noted that rejection of the 244 respondents produced bias in the distribution of race, father's education and mother's education within the analysis set. Relative to the overall sample, the number of white respondents is disproportionately low. The category of "College Graduate" demonstrated the greatest disproportionality for the distribution of father's education within the analysis set. Mother's education demonstrated the greatest disproportionality for the categories of "Grade 8" and "Some High School".

APPENDIX B

PARTIAL REGRESSION COEFFICIENTS FOR PATH MODELS

TABLE I

PARTIAL REGRESSION COEFFICIENTS IN STANDARD FORM FOR MODEL 1

	X_1	X_2	X_3	X_4
X_1 (Father's Education)	--	--	-.118[a]	.117[a]
X_2 (Breadwinner's Occupation)	--	--	.038[b]	.027[b]
X_3 (Goal Impedance)	--	--	--	.018[b]
X_4 (Occupational Aspirations)	--	--	--	--

[a]Coefficient larger than its standard error, but less than twice its standard error.

[b]Coefficient smaller than its standard error.

TABLE II

PARTIAL REGRESSION COEFFICIENTS IN STANDARD FORM FOR MODEL 2

	X_1	X_2	X_3	X_5
X_1 (Father's Education)	--	--	-.118[a]	.089[a]
X_2 (Breadwinner's Occupation)	--	--	.038[b]	.087[a]
X_3 (Goal Impedance)	--	--	--	-.113[a]
X_5 (Occupational Expectations)	--	--	--	--

[a]Coefficient larger than its standard error, but less than twice its standard error.

[b]Coefficient smaller than its standard error.

TABLE III

PARTIAL REGRESSION COEFFICIENTS
IN STANDARD FORM FOR MODEL 3

	X_1	X_2	X_3	X_6
X_1 (Father's Education)	--	--	-.118[a]	-.021[b]
X_2 (Breadwinner's Occupation)	--	--	.038[b]	.076[a]
X_3 (Goal Impedance)	--	--	--	-.159*
X_6 (A.O.G.D.)	--	--	--	--

[a]Coefficient larger than its standard error, but less than twice its standard error.

[b]Coefficient smaller than its standard error.

*Coefficient twice as large as its standard error.